



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0679; Project Identifier MCAI-2021-01213-T; Amendment 39-22392; AD 2023-06-06]

RIN 2120-AA64

Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2C11 (Regional Jet Series 550) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by a determination that new and more restrictive airworthiness limitations are necessary. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate two aircraft maintenance manual (AMM) tasks. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0679; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the

mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Chirayu A. Gupta, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2C11 (Regional Jet Series 550) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the *Federal Register* on June 16, 2022 (87 FR 36269). The NPRM was prompted by AD CF-2021-38, dated November 5, 2021 (TCCA AD CF-2021-38), issued by Transport Canada, which is the aviation authority for Canada. TCCA AD CF-2021-38 states that a report was received of the emergency ram air valve part number GG670-95019-1 stuck in closed or partially open positions. An investigation revealed that the emergency ram air valve is failing due to corrosion of multiple sub-components, which causes an increase in the breakaway torque that cannot be overcome by the valve actuator.

In the NPRM, the FAA proposed to require revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations.

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2C11 (Regional Jet Series 550) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The SNPRM published in the *Federal Register* on January 13, 2023 (88 FR 2279). The SNPRM was prompted by a determination that the existing maintenance or inspection program, as applicable, must be revised to incorporate two AMM tasks. In addition, Transport Canada revised AD CF-2021-38, dated November 5, 2021, and issued Transport Canada AD CF-2021-38R1, dated May 25, 2022 (TCCA AD CF-2021-38R1). In the SNPRM, the FAA proposed to require revising the existing maintenance or inspection program, as applicable, to incorporate two AMM tasks. The FAA is issuing this AD to address in-service reports of emergency ram air valve part number (P/N) GG670-95019-1 stuck in closed or partially open positions, which, if not corrected could result in a complete loss of outside air supply, leading to an increase in flight deck and cabin temperatures and a possible increased level of contaminated air (carbon monoxide, carbon dioxide, or ozone).

You may examine TCCA AD CF-2021-38 and TCCA AD CF-2021-38R1 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0679.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the SNPRM or on the determination of the cost to the public.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement

with this State of Design Authority, it has notified the FAA of the unsafe condition described in the TCCA AD referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, this AD is adopted as proposed in the SNPRM. None of the changes will increase the economic burden on any operator.

Costs of Compliance

The FAA estimates that this AD affects 1,158 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the agency estimates the average total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-06-06 MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-22392; Docket No. FAA-2022-0679; Project Identifier MCAI-2021-01213-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to MHI RJ Aviation ULC airplanes, certificated in any category, identified in paragraphs (c)(1) through (5) of this AD.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes.

(2) Model CL-600-2C11 (Regional Jet Series 550) airplanes.

(3) Model CL-600-2D15 (Regional Jet Series 705) airplanes.

(4) Model CL-600-2D24 (Regional Jet Series 900) airplanes.

(5) Model CL-600-2E25 (Regional Jet Series 1000) airplanes.

(d) Subject

Air Transport Association (ATA) of America Code: 21, Air conditioning.

(e) Reason

This AD was prompted by a determination that the existing maintenance or inspection program, as applicable, must be revised to incorporate two aircraft maintenance manual (AMM) tasks. The FAA is issuing this AD to address in-service reports of emergency ram air valve part number (P/N) GG670-95019-1 stuck in closed or partially open positions, which, if not corrected could result in a complete loss of outside air supply, leading to an increase in flight deck and cabin temperatures and a possible increased level of contaminated air (carbon monoxide, carbon dioxide, or ozone).

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance or Inspection Program Revision

(1) Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in figure 1 to the introductory text of paragraph (g)(1) of this AD. The initial compliance time for doing the task is at the applicable time specified in paragraph (g)(1)(i) or (ii) of this AD.

Figure 1 to the introductory text of paragraph (g)(1) – AMM Task for the Ram-Air Valve

Effectivity	Interval	AMM Task Number *
All	1800 FH	21-52-04-710-801-A01, as specified in AMM Revision 70, dated May 25, 2022, or later revisions
* If, during any of the operational checks of the valve, the valve itself is found inoperable, before further flight, remove and replace valve P/N GG670-95019-1 with a serviceable part. The replacement of an inoperable valve with a serviceable valve on an airplane can be deferred in accordance with the applicable instructions and limitations of MMEL item 21-52-01, sub-item 2 or 3 (only for models CL-600-2C10 or CL-600-2D15/CL-600-2D24 respectively). To defer the valve replacement, the ram air shutoff valve is deactivated in the open position in accordance with AMM task 21-52-00-040-802 and the airplane is operated in accordance with the MMEL operating procedure.		

(i) For airplanes that have accumulated less than 1,800 flight hours since the last operational check of the ram air shutoff valve was performed as specified in AMM Task 21-52-04-710-801-A01, and for airplanes that have accumulated less than 1,800 flight hours from the date of issuance of the original airworthiness certificate or original export certificate of airworthiness: Within 90 days after the effective date of this AD, or before accumulating 1,800 total flight hours, whichever occurs later.

(ii) For airplanes that have accumulated 1,800 flight hours or more since the last operational check of the ram air shutoff valve was performed as specified in AMM Task 21-52-04-710-801-A01, and for airplanes that have accumulated 1,800 flight hours or more since the date of issuance of the original airworthiness certificate or original export certificate of airworthiness and for which no operational check of the valve has been performed: Within 90 days after the effective date of this AD or before accumulating

3,000 total flight hours, whichever occurs later.

(2) Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in figure 2 to the introductory text of paragraph (g)(2) of this AD. The initial compliance time for doing the task is at the applicable time specified in paragraph (g)(2)(i) or (ii) of this AD.

Figure 2 to the introductory text of paragraph (g)(2) – AMM Task for the Pack Discharge and Ram-Air Supply Ducts

Effectivity	Interval	AMM Task Number *
All	17600 FH	21-51-00-220-801-A01, as specified in AMM Revision 70, dated May 25, 2022, or later revisions
* If damage is found during any of the detailed inspections of the pack discharge and ram air supply ducts, such as: wear, cuts, holes, signs of leakage, signs of overheating, or damage to the duct insulation, before further flight, replace the damaged component(s) in accordance with AMM 21-52-06 for the ram air supply duct, AMM 21-51-26 for the left pack discharge duct, and AMM 21-51-28 for the right pack discharge duct. If parts are not available, contact MHI RJ for an approved disposition. The approved disposition must specifically refer to Part II. of Transport Canada AD CF-2021-38R1.		

(i) For airplanes that have accumulated less than 17,600 flight hours since the last detailed inspection of the pack discharge and ram air supply ducts was performed as specified in AMM Task 21-51-00-220-801-A01, and for airplanes that have accumulated less than 17,600 flight hours since the date of issuance of the original airworthiness certificate or original export certificate of airworthiness: Within 90 days after the effective date of this AD, or before accumulating 17,600 total flight hours, whichever occurs later.

(ii) For airplanes that have accumulated 17,600 flight hours or more since the last detailed inspection of the pack discharge and ram air supply ducts as specified in AMM Task 21-51-00-220-801-A01, and for airplanes that have accumulated 17,600 flight hours or more since the date of issuance of the original airworthiness certificate or original

export certificate of airworthiness, and for which no detailed inspection of the pack discharge and ram air supply ducts has been performed: Within 90 days after the effective date of this AD.

(h) No Alternative Actions or Intervals

After the existing maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals, may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

(1) Refer to Transport Canada AD CF-2021-38R1, dated May 25, 2022, for related information. This Transport Canada AD may be found in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0679.

(2) For more information about this AD, contact Chirayu A. Gupta, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

None.

Issued on March 15, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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